

1 two switches. However, in response to the forward looking open network
2 architecture environment which promotes interconnectivity between carrier
3 networks and unbundled access to incumbent network elements, some NGLDC
4 vendors already provide for the capability to integrate the NGDLC with as many
5 as 5 different switches⁴. The DSC Litespan 2000 used by Pacific Bell can be
6 integrated with 4 switches. I understand that customers are requesting the
7 NGDLC vendors to increase this number to as high as 8. Because this
8 requirement is being market driven, I expect that the number will be increased to
9 meet market demand.

10 The multiple switch hosting capability is the optimum method for unbundling
11 in a forward looking multiple carrier environment because, regardless of who
12 their local service provider is, it provides all California customers equal access to
13 all the capabilities of this highly efficient and high quality digital local loop facility.
14 Switching a customer between local service providers is performed using the
15 operations and support systems. I like to use a bus analogy to explain how this is
16 done. Imagine that your subdivision is served by buses. The bus in this analog
17 can be compared to a DS1⁵ in the transmission link that connects the remote to
18 the switch (the most common transmission link used is SONET OC-3 which has
19 a capacity of 84 DS1s). The seats in the bus can be compared to the timeslots
20 (voiceband channels, or DS0s). In each DS1 there are 24 DS0s. Multiple switch
21 hosting can be compared to more than one bus company serving your
22 subdivision. The way NGDLC assigns customers to the appropriate carrier is

⁴ The number of switches that can be integrated with the remote is a "software capability" and with new releases of software the number will increase in response to the market needs.

⁵ DS1 ("digital speed one") is the basic digital signal which has 24 timeslots, or DS0s ("data speed zeros", or voiceband channels).

1 similar to giving the residents in the subdivision a "bus pass" for one of the bus
2 companies. Thus the customer can only ride, for example on an AT&T bus,
3 while another can only ride on an MCI bus and still another can only use a Pacific
4 Bell bus. If the customer decides to switch to a different bus company she simply
5 surrenders the pass and receives a new one. That is exactly how NGDLC GR-
6 303 works. The only difference is that instead of a requiring a bus pass, the
7 information is entered and stored in the software.

8 2. Integrated Network Access (INA) Architecture

9 GR-303 also requires that a NGDLC system provide the functional
10 equivalence of a Main Distributing Frame (MDF) for copper pairs but on a digital
11 basis. This feature makes it possible to terminate and redirect DS0 channels,
12 for example, to the interoffice transmission network (for non-locally switched and
13 non-switched services)⁶ and is made possible by the Integrated Network Access
14 (INA) architecture that provides a digital cross-connection functionality between
15 the digital loop facilities and the digital interoffice facilities⁷. This capability also
16 supports the forward looking open network architecture local competition
17 environment.

18 NGDLC employs two forms of INA that facilitate unbundled access for IDLC
19 as shown in Exhibit EMC3.

20 (1) Field Grooming at the NGDLC remote (Exhibit EMC3, Figure 1)

⁶ Bellcore, GR-303, IDLC Generic Requirements, Objectives and Interface, page 1-3, paragraph 1.3.1

⁷ Bellcore GR-303, IDLC Generic Requirements, Objectives and Interface, page 2-3, paragraph 2.14.

1 The NGDLC employs a TSI (Time Slot Interchanger)⁸ at the IDLC remote
2 that makes it possible to electronically cross-cross, or route, (commonly
3 called DS0 grooming) a customer served by the IDLC remote to any DS1 in
4 the transmission. This is a critically important capability that the old
5 technology did not have. This feature supports the forward looking
6 competitive environment in the following ways:

- 7 • This feature allows an existing incumbent customer who chooses a
8 competitor as her service provider, to be cross-connected to a
9 competitor DS1 by electronically removing the cross-connect from the
10 incumbent and cross-connecting the customer to a competitor DS1.⁹
11 If the customer switches her service back to the incumbent, or to
12 another competitor, this feature allows the appropriate cross-connects
13 to made electronically in the same manner.
- 14 • Similarly this TSI feature allows a new customer to be electronically
15 cross-connected to either an incumbent DS1 or a competitor DS1.

16 (2) Sidedoor Grooming (Exhibit EMC3, Figure 2)

17 This features employs the TSI (Time Slot Interchanger) at the local digital
18 switch IDT (Integrated Digital Terminal). Sidedoor grooming requires that the
19 IDT have the capability to collect and route DS0s from a DS1 port connected
20 to the NGDLC remote to another DS1 port on the IDT for interoffice
21 connection, which is commonly referred to as "hairpinning". This TSI

⁸ The TSI can be viewed as an electronic cross-connect – it can connect any customer to any timeslot going to the central office. It performs a function similar to a manual cross-connection on the MDF, the difference is that it does this electronically. It is one of the most important features that has been introduced into the outside plant environment and is a critical functionality needed to support a multi-carrier environment for provision of local service.

1 provides that same functionality at the IDT for sidedoor grooming as at the
2 NGDLC remote for field grooming.

3 **Q. CAN THE SIDEDOOR CAPABILITY ALSO BE USED FOR PROVIDING THE**
4 **COMPETITOR UNBUNDLED ACCESS TO LOOPS SERVED ON OLDER**
5 **GENERATION IDLC, SUCH AS, SLC96 AND SLC SERIES 5, WHICH PACIFIC**
6 **BELL HAS IN ITS EXISTING NETWORK?**

7 A. Yes, where the local digital switch supports the "sidedoor" feature, this feature
8 provides the same unbundled access for SLC96 and SLC Series 5 IDLC.
9

10 **Q. WHAT IS A DIGITAL CROSS-CONNECT SYSTEM (DCS) AND HOW DOES IT**
11 **PROMOTE OPEN NETWORK ARCHITECTURE AND UNBUNDLED ACCESS**
12 **FOR IDLC?**

13 A. DCS is a software based system, that is located in the central office, and is used to
14 electronically cross-connect DS0s ("data speed zeros", which are voiceband
15 channels) between two network components, such as the loop network and the
16 switch, or the loop network and the interoffice network. It performs the equivalent
17 cross-connection function for a digital network that a MDF performs for an analog
18 network. The DCS uses a Time Slot Interchanger (TSI), just like the NGDLC, to
19 electronically cross-connect DS0s between network components as shown in Exhibit
20 EMC4. A good analogy to help understand how the TSI works is to compare the TSI
21 in a DCS (Digital Cross-Connect System) to a bus terminal where passengers can
22 get off one bus and be routed through the bus terminal to get onto another bus to go
23 to a different location. The DS1s connected to the Digital Cross-Connect System

⁹ Bellcore GR-303, page 12-109 states the requirements for this functionality. It is also illustrated in the same reference in figure 12-48.

1 (DCS) can be compared to a buses and the DS0 channels in the DS1 are
2 comparable to seats on the buses. Similar to the ability of a passenger to change
3 buses at the bus terminal in order to go to a different destination, a DS0 in a DS1
4 from one network component can be routed by the TSI to a DS1 in another network
5 component connected to the DCS. The DCS allows electronic cross-connecting of
6 DS0 channels without the requirement to convert them to analog which is needed if
7 the cross-connection is made at the MDF. These cross-connects are made
8 electronically by computer commands via the operating support system from a
9 terminal located in a remote operations center.

10 The DCS allows test access of any DS0 without interfering with any other DS0. It
11 can be tested locally or from a remote test system, such as SARTS (Switched
12 Access Remote Test System) widely used by the incumbents to test special
13 services.

14 The DCS monitors the performance of the digital signals connected to it,
15 checking for transmission loss and transmission errors. If performance goes below
16 an acceptable level, the DCS initiates alarms connected by an administrative link to a
17 centralized operations center.

18 The DCS is designed to provide digital cross-connection functionality between
19 different network components and permit end-to-end digital transmission. It is widely
20 used by the incumbents for non switched and non locally switched special service
21 provisioning requiring interconnection between the local loop network and the
22 interoffice digital network. An important application by the incumbents is making it
23 possible for users (incumbents customers) to have the flexibility to manage their own

1 networks.¹⁰ This feature and capability of the DCS architecture also supports the
2 forward looking local competition environment.

3 In summary the key features and capabilities of the DCS architecture supporting
4 the forward looking local competition environment are:

- 5 • The DCS allows cross-connecting of DS0 channels without converting them to
6 analog. This eliminates the analog-to-digital conversion with its transmission
7 penalties.
- 8 • The competitor can control the cross-connects of unbundled network element
9 circuit segments of digital facilities. This gives the competitor flexibility to
10 configure an existing network conveniently and almost instantaneously. Security
11 partitioning is included to protect other users, including the incumbent, whose
12 circuits pass through the same DCS.
- 13 • The DCS provides test access.
- 14 • The DCS provides performance monitoring.

15
16 **Q. EXPLAIN HOW THE DIGITAL CROSS-CONNECTION SYSTEM IS USED TO**
17 **PROVIDE THE COMPETITOR UNBUNDLED ACCESS TO LOOPS SERVED BY**
18 **IDLC.**

19 A. DCS applications support both TR-008 (old technology IDLC standard) and
20 Integrated Network Access which is used by the incumbent for special service
21 provisioning.

22 SLC 96 and SLC Series 5 IDLC

¹⁰ Bellcore, Telecommunications Transmission Engineering, Volume 2, page 688, "A DCS can be controlled remotely via a data link. This forms the basis of a service, whereby the exchange carrier's customer may control the cross-connects of rented circuit segments. This gives the user flexibility to

1 For SLC96 or SLC Series 5 a DCS is used to provide unbundled access for the
2 competitor as shown in Exhibit EMC7, Method - D. This architecture is used by the
3 incumbents, where there are a sufficient number of special services, to provide
4 digital access, or cross-connection functionality, to interconnect the local loop and
5 the interoffice transmission facilities for non locally switched and non switched
6 special services which are served on IDLC. The DCS functions as an electronic MDF
7 to unbundle the DS0 and route the competitor DS0 to a competitor DS1 port on the
8 DCS and avoid "back-to-back analog-to-digital conversion". Terminating all the IDLC
9 SLC96 and SLC Series 5 IDLCs in the switching center on a DCS provides the
10 functionality to provide unbundled access for all loops served by these technologies
11 in a switching center.

12 The SLC96 and SLC Series 5 digital loop carriers can operate in Mode 1 or
13 Mode 2 where Mode 1 does not concentrate (use 4 DS1s for 96 lines) and Mode 2
14 provides 2:1 concentration (uses 2 DS1s for 96 lines). However, the DCS does not
15 support Mode 2.

16
17 NGDLC

18 Because the NGDLC¹¹ supports both the new GR-303 and the old TR-008
19 integrated interface, the DCS can be applied for NGDLC in the same way as for
20 older generation IDLC.¹²

configure an existing network conveniently and almost instantaneously. Security partitioning is included to protect other customers whose circuits pass through the same DCS."

¹¹ The NGDLC can support either a GR-303 interface ("interface" is a Bellcore term for the digital connection between the IDLC remote and the local switch and GR-303 defines the manner in which it interfaces) or the older TR-008 interface. In some existing cases, a NGDLC may have both types of interfaces. This occurs when one or more interface groups are connected to a local digital switch that has the older IDT (not compliant with GR-303) or the switch software has not yet be upgraded. A TR-008 interface group has the capacity of 96 lines, thus a large remote may need numerous TR-008 interface

INA (Integrated Network Access)

The DCS can be applied to provide cross-connection functionality for unbundled access to any DS0 that is field groomed by a NGDLC as shown in Exhibit EMC3, Figure 1, or that are sidedoor groomed for both old generation DLC and NGDLC as shown in Exhibit EMC3, Figure 2.

IV – SUMMARY OF METHODS FOR UNBUNDLED ACCESS TO IDLC

Q. PLEASE SUMMARIZE THE METHODS AVAILABLE THAT WOULD PERMIT THE INCUMBENT TO PROVIDE COMPETITORS UNBUNDLED ACCESS TO EXISTING LOOPS SERVED BY IDLC.

A. The following table summarizes the methods for providing the COMPETITOR unbundled access to loops served by IDLC

METHOD	ARCHITECTURE	NGDLC	SLC96 SLC Series 5	EXHIBIT
Method –A	Integrated with competitor Switch	Yes		EMC5
Method – B	Field Grooming	Yes		EMC6
Method – C	Sidedoor	Yes	Yes (1)	EMC7
Method - D	Digital Cross-Connect System (DCS)	Yes	Yes	EMC7

Notes:

(1) This method is applicable where the Local Digital Switch supports the sidedoor feature.

groups depending on the number of lines served by the remote. Whereas, a single GR-303 interface has the capacity so serve all lines served by the remote.

Method – A (Integrated GR303 Switch Interface)

This method is applicable to NGDLC and utilizes the NGDLC capability for multiple switches to be integrated with the IDLC using a GR-303 interface for unbundling the customer's DS0. It requires a minimum of 2 DS1s.

The competitor inter-connects from its collocation space with the incumbent digital network at the DSX (Digital Signal Crossconnect)¹³ as shown in Exhibit EMC5.

Method – B (Field Grooming)

This method is applicable to NGDLC and utilizes the IDLC Remote TSI feature for grooming (unbundling) the customer's DS0 to a competitor DS1.

The competitor inter-connects from its collocation space with the incumbent digital network at the DSX as shown in Exhibit EMC6.

Method – C (Sidedoor)

This method is applicable to all IDLC technologies and utilizes the Local Digital Switch IDT (Integrated Digital Terminal) sidedoor feature for grooming (unbundling) the customer's DS0 to a competitor DS1.

This method is illustrated in Exhibit EMC7. The competitor inter-connects from its collocation space with the switch sidedoor port at a DSX.

Method – D (Digital Cross-Connect System)

This method is applicable to all IDLC technologies and utilizes a digital cross-connect system (DCS) to provide the competitor access to a customer's DS0 using a TR-008 or INA architecture. The DCS functions as an electronic MDF.

¹³ DSX (Digital Signal Crossconnect) is a terminal used for cross-connecting DS1s.

1 The competitor inter-connects from its collocation space with the incumbent
2 digital network to the Digital Cross-Connect System (DCS) as illustrated in Exhibit
3 EMC7.

4 The DCS can also be used in combination with Sidedoor Grooming to provide
5 greater flexibility.

6
7 **V - DLC TECHNOLOGIES BEING DEPLOYED BY THE INCUMBENTS**

8 **Q. ARE PACIFIC BELL AND GTEC DEPLOYING NEXT GENERATION DLC?**

9 A. Yes, based on Mr. Deere's testimony, the most common digital loop carriers
10 currently in the network are DSC Communications Corporation Litespan 2000,
11 Lucent SLC Series 5 and Lucent SLC96. The DSC Litespan 2000 is NGDLC and is
12 a highly efficient DLC.

13 I understand that GTEC is deploying Lucent SLC2000, RELTEC DISC*S and
14 Advanced Fiber Communications UMC1000 technology. Both the SLC2000 and the
15 DISC*S are large next generation DLCs and the UMC1000 is a next generation DLC
16 for medium to low density applications.

17 **Q. PLEASE DESCRIBE THE OLD GENERATION IDLC TECHNOLOGY IN PACIFIC**
18 **BELL'S EMBEDDED NETWORK AND HOW IT CAN BE USED TO SUPPORT**
19 **UNBUNDLED ACCESS TO DIGITAL SUBSCRIBER LOOPS.**

20 A. Mr. Deere identifies two old technology DLCs in Pacific Bell's embedded network.
21 One is SLC96, which is the oldest, and the other is SLC Series 5. I will address each
22 separately.

23 SLC96

24 SLC96 is the oldest technology and to the best of my knowledge it is no longer
25 available. SLC Series 5 superseded SLC96. A fully equipped SLC96 system has a

1 capacity of 96 lines. Were the requirements exceed 96 lines, multiple systems are
2 placed in a single enclosure. In early DLC system applications, the DLC was
3 deployed in the lower density areas due to the high cost of long coarse gauge
4 copper pairs. Due the small capacities requirements in these areas, the DLC remote
5 consisted of a single SLC96 system with a capacity of 96 lines. As the DLC systems
6 became more economical, their use began to migrate into the more densely
7 populated suburban areas and multiple system DLC remote sites became common.

8 The SLC96 system can be operated in Mode 1, 2 or 3.

9 Mode 1 - no concentration (4 DS1s serving up to 96 lines)

10 Mode 2 - 2:1 concentration (2 DS1s serving up to 96 lines)

11 Mode 3 - non switched and non locally switched special services .

12 SLC Series 5.

13 The SLC Series 5 operates the same as the SLC96 except that it has double the
14 capacity in the same amount of space and superceded the SLC96.

15 The SLC Series 5 system supports Mode 1 and 2 in a TR-008 integrated
16 configuration and with the latest feature package (FP303) can support the GR-303
17 integrated configuration. FP303, supports variable concentration and ISDN service
18 provisioning on an integrated basis.

19 Future Deployment

20 Any deployment on a forward looking basis of old DLC technology will be very
21 limited. For example the older SLC Series 5 is still being installed to fill out existing
22 cabinet capacity and in some cases it is still being deployed in lower density rural
23 areas pending a technology selection decision by the LEC on the NGLDC technology
24 they plan to deploy in the lower density areas.

**VI – RESPONSE TO MR. DEERE’S INTERPRETATION OF THE FCC’S LOCAL
INTERCONNECTION ORDER.**

**Q. DO YOU AGREE WITH MR. DEERES’S INTERPRETATION OF THE FCC’S
LOCAL INTERCONNECTION ORDER AS IT ADDRESSES ACCESS TO
UNBUNDLED LOOPS SERVED USING IDLC?**

A. No, on page 11 of his testimony, Mr. Deere says that the FCC stated: “we find it technically feasible to unbundle IDLC – delivered loops. One way to unbundle an individual loop from an IDLC is to use demultiplexer to separate the unbundled loop(s) prior to connecting the remaining loops to the switch.” Mr. Deere states that the process described by the FCC is the installation of a Universal DLC and the un-integration of the IDLC.

I do not agree with his interpretation. The process using UDLC which Mr. Deere proposes would more accurately be called “channelization” as opposed to using a “demultiplexer”. A way of doing what is suggested by the FCC term “demultiplexer” is to use a Digital Cross Connect (DCS) which permits the incumbent to separate (route, or commonly called “groom”) the DS0 to be unbundled and to connect the remaining loops to the switch. This is accomplished in a digital environment without a “digital-to-analog” conversion, as proposed by Mr. Deere, which degrades the quality of the loop and escalates both investment and operating expenses because of the manual intervention inherent in provisioning analog loops. I believe my interpretation is more accurate. Furthermore, as an option to using a DCS, as indicated in footnote 2, the FCC also mentions the “hairpinning” method which is similar to the DCS

1 method, except it employs the TSI in the IDT¹⁴ instead of the TSI in the DCS (Digital
2 Cross-Connect).

3 The Commission should not accept Mr. Deere's unlikely interpretation that the
4 FCC favors or even supports the use of UDLC to provide access to unbundled loops
5 served using IDLC. There is no basis for that interpretation.
6

7 **Q. ON PAGE 11, MR. DEERE STATES THAT "WHEN A CUSTOMER IS**
8 **CURRENTLY SERVED BY IDLC AND A COMPETITOR CONVERTS THAT**
9 **CUSTOMER TO ITS SERVICE, PACIFIC BELL UNBUNDLES THE LOOP FROM**
10 **THE SWITCH, WHERE POSSIBLE. IF THERE IS A NON-INTEGRATED DLC**
11 **OPERATING IN PARALLEL WITH THE IDLC, PACIFIC BELL MOVES THE**
12 **CUSTOMER'S SERVICE TO THAT FACILITY AND CROSS CONNECTS IT TO A**
13 **POINT OF ACCESS. IF NO FACILITY CURRENTLY EXISTS FOR AN**
14 **ALTERNATIVE METHOD OF PROVIDING THE REQUESTED LOOP**
15 **UNBUNDLING IT WILL BE NECESSARY FOR PACIFIC BELL TO DESIGN,**
16 **ENGINEER AND INSTALL THE NECESSARY FACILITY. THE COMPETITOR**
17 **WILL BE RESPONSIBLE FOR THE COST OF THESE FACILITIES IN SUCH**
18 **CASES THE INTERCONNECTION/NETWORK ELEMENT REQUEST (INER)**
19 **PROCESS PROVIDES A WAY FOR THE COMPETITOR TO DETERMINE THE**
20 **COSTS AND THE TIME REQUIRED". DO YOU AGREE?**

21 A. No. First of all, as I explained earlier, the competitor must be provided digital
22 connectivity to loops served on IDLC. Notwithstanding this, the proposal to use the
23 INER procedure is simply not a practical, or realistic, approach.

¹⁴ IDT (Integrated Digital Terminal) is the switch peripheral that contains the DS1 ports that terminate the digital signal from the DLC.

1 (a) The provisioning interval (planning, design, right-of-way acquisition, work
2 scheduling, construction, etc.) for placing an additional facility would be
3 excessive and I can't imagine a customer finding such a delay, or the uncertainty
4 on timing of service availability, tolerable.

5 (b) Assuming the facility is placed, and the competitor bears the costs of installing it,
6 would other competitors be able to use capacity in this facility to serve their
7 customers or would the incumbent be able to use capacity in these facilities? If
8 the capacity is used up and the competitor who paid for the facility requested
9 additional capacity, would the competitor have to pay again for new facility to be
10 constructed?

11 Based on my operations experience with similar billing procedures, this option is
12 simply not practical. It is one of the biggest sources of customer complaints I have
13 experienced.

14 **Q. ON PAGE 14, MR. DEERE STATES THAT ONCE A COMPETITOR OR OTHER**
15 **LOCAL SERVICE PROVIDER ORDERS A COPPER FACILITY IN A GIVEN**
16 **LOCATION, PACIFIC BELL MIGHT NOT BE ABLE TO UPGRADE THE**
17 **TECHNOLOGY TO DIGITAL LOOP CARRIER ON FIBER WITHOUT THE**
18 **AGREEMENT OF ALL THE OF THESE CARRIERS. WHAT IS THE**
19 **SIGNIFICANCE OF THIS POINT TO YOU?**

20 A. It just illustrates the implausibility of Pacific Bell's position which denies
21 competitor's access to IDLC technology in a unbundled network element
22 environment. Mr. Deere seems to be suggesting that modernization of local loop
23 network will be impeded by the incumbents being required to provide competitors
24 unbundled access to local loops. It defies logic and would be damaging to the future

1 economic growth of California if the provisioning of additional capacity on a forward-
2 looking basis would not be accomplished using the least cost, most efficient, highest
3 quality, and service capable digital technology and that the existing network was not
4 modernized. It is critical to future economic growth in California that all carriers,
5 incumbents and the competitors, provide the people of California the highest quality,
6 most efficient and least cost telecommunications service that technology can
7 provide. This problem Mr. Deere identifies, if true, is not caused by the development
8 of local service competition but is caused by Pacific Bell's strategy to impede the
9 capabilities of other carriers by not making digital inter-connection available to their
10 IDLC local loop network in the UNE environment.

11 **VII - THERE IS NORMALLY AN EASILY DISCERNIBLE DEMARCATION BETWEEN**
12 **FEEDER AND DISTRIBUTION PLANT**

13 **Q. ON PAGE 8, MR DEERE SAYS "IN MANY CASES, THERE IS NO CLEAR, OR**
14 **VISIBLE POINT OF CONNECTION OF THE FEEDER AND DISTRIBUTION**
15 **FACILITY SINCE THE CABLES ARE SIMPLY SPLICED TOGETHER ON A**
16 **PERMANENT BASIS." DO YOU AGREE?**

17 A. I would be very surprised if this accurately represented the configuration for more
18 than an extremely small percentage of the loops in California. Mr. Deere is talking
19 about a configuration used for copper facilities designed on a "multiple plant design"
20 or a "dedicated outside plant" basis. Multiple plant was the design used prior to the
21 1960's and was abandoned because it generated very high operating costs, low
22 investment utilization and service problems. Dedicated Outside Plant was
23 introduced in the 60's and abandoned by the end of the 1960's because it was an
24 administrative "nightmare" and a major source of service and maintenance problems.
25 As a result a major task force, manned by representatives of the major Bell

1 Operating Companies, including my own, conceived and introduced the "Serving
2 Area Concept" design that is still used today. I would be shocked if there is still any
3 significant amount of the old design left. If there is any, it can not be significant
4 enough to be a factor that the Commission needs to be concerned about. If it was,
5 Pacific Bell would have a serious service problem.

6 In the Serving Area Concept, the copper network does consist of distinct
7 components: Feeder, SAI (Serving Area Interface, also called FDI, which is Feeder
8 Distribution Interface), Distribution and NID. In certain cases such as service to high
9 rise apartments the distribution plant is inside the building and is now owned by the
10 customer. In that case the building entrance terminal becomes and is administered
11 as the SAI. The SAI is the interface between the feeder and the distribution, the
12 customer's copper loop is cross-connected by a "jumper wire" to a feeder pair at the
13 SAI. If a DLC is used for the feeder, the DLC remote is connected by a copper cable
14 to the SAI and the distribution loop is cross-connected to the DLC remote at this SAI.

15
16 **VIII – SUMMARY AND CONCLUSION**

17 **Q. HOW WOULD YOU SUMMARY YOUR TESTIMONY?**

18 A. The options for unbundled access for the local loop provided by Pacific Bell's and
19 GTEC's deny competitive local carriers unbundled access to the forward looking and
20 highly efficient Integrated Digital Loop Carrier (IDLC) technology being deployed by
21 all incumbents for provisioning local loops. Instead Pacific Bell and GTEC propose to
22 provide competitors unbundled access using "Universal" Digital Loop Carrier (UDLC)
23 which degrades the transmission quality because of the number of analog-to-digital
24 conversions it incurs. In addition UDLC delays service provisioning, results in
25 significant increases in costs to the competitor and provides less reliable service.

1 The capabilities of NGDLC and Integrated Network Access architectures provide
2 digital cross-connection functionality that supports unbundled access to IDLC local
3 loops but these options were not offered to the competitors by either Pacific Bell or
4 GTEC. These architectures provide high quality end-to-end digital transmission,
5 automatic service provisioning and network performance monitoring and testing
6 which is critical to provide Californians high service quality and allow efficiencies
7 needed by the competitor to be competitive.

8 I recommend that the Commission require Pacific Bell and GTEC to provide new
9 entrants and their customers unbundled access to the same loop technology (IDLC)
10 that Pacific Bell and GTEC use to serve their customers. Otherwise the Commission
11 will provide the incumbent an unfair competitive advantage over the competitors,
12 frustrate the development of local competition and, thus, deny California consumers
13 more choice of providers and lower prices for access to high quality
14 telecommunication services.

15
16 **Q. DOES THAT CONCLUDE YOUR TESTIMONY?**

17 A. Yes.

18
19

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T

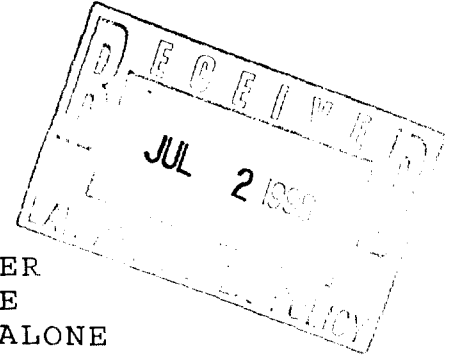
**Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554**

In the Matter of)	
)	
Application of BellSouth Corporation,)	CC Docket No. 98-121
BellSouth Telecommunications, Inc.)	
and BellSouth Long Distance, Inc.)	
for Provision of In-Region, InterLATA)	
Services in Louisiana)	

**Exhibit T:
TRA Directors' Conference
Docket No. 97-01262 (June 30, 1998)**

BEFORE THE TENNESSEE REGULATORY AUTHORITY
DIRECTORS' CONFERENCE

Tuesday, June 30, 1998
Volume II of II



BEFORE: CHAIRMAN LYNN GREER
DIRECTOR SARA KYLE
DIRECTOR MELVIN MALONE

APPEARANCES: MR. DAVID WADDELL

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INDEX

DOCKET	DESCRIPTION	DISPOSITION	PAGE
97-01262	BellSouth Tele., Petition to convene a contested case proceeding to establish permanent prices for interconnection and unbundled network elements	Ruling made	3
	Consider motion to strike NC proposed findings of fact and conclusions of law and to prohibit any staff member of the Agency for utilizing said proposal or its reasoning		
	Consider decision on methodology and inputs		

1 (The aforementioned Directors'
2 Conference, Volume II, came on to be heard on
3 Tuesday, June 30, 1998, beginning at approximately
4 10:50 a.m., before Chairman Lynn Greer, Director Sara
5 Kyle, and Director Melvin Malone, when the following
6 proceedings were had, to-wit:)

7
8 MR. WADDELL: 97-01262, BellSouth
9 Telecommunications, Inc., petition to convene a
10 contested case proceeding to establish permanent
11 prices for interconnection and unbundled network
12 elements. We first have a motion to strike the
13 North Carolina proposed findings of fact, and then we
14 have the decision.

15 CHAIRMAN GREER: Let me state for
16 the record on the Consumer Advocate's motion to
17 strike a filing by BellSouth of a "recommendation"
18 from the North Carolina Public Utilities Commission
19 staff, let me state that the TRA never granted
20 BellSouth's request for the Authority to take
21 administrative notice of the filing, and, therefore,
22 the filing has never been a part of this evidentiary
23 record. And based on that, I'm going to rule that
24 his motion is moot.

25 DIRECTOR KYLE: I vote yes.

1 DIRECTOR MALONE: I vote yes.

2 CHAIRMAN GREER: We have 19
3 issues to be decided, and I will just read the issue
4 out and then we will take them one at a time.

5 (Pause.)

6 DIRECTOR MALONE: Mr. Chairman,
7 if I can make a brief comment before we begin.
8 First of all, I would like to commend the parties for
9 the completeness with which they have presented their
10 cases and for the enthusiasm they've shown in
11 defending their positions. We're about to render our
12 decisions on Phase One of the permanent pricing
13 proceeding, one of the largest and most complex
14 dockets presented before the Tennessee Regulatory
15 Authority.

16 In making its decisions, the
17 Authority has no corporate torch to carry, nor does
18 it have an interest outside of what is best for
19 Tennessee in promoting competition. In a way I'm
20 somewhat envious of the parties for the attorneys who
21 practice before us, they have but to protect their
22 client's interest and theirs alone; for the
23 witnesses, they have but to support their company's
24 position with all their might. All, I believe, have
25 done so with commitment and intelligence.

1 Even so, the Federal
2 Telecommunications Act of 1996 and as or more
3 importantly the State Act of 1995 places a greater
4 burden on this Agency. The general assembly has
5 declared that the policy of this State is to foster
6 the development of an efficient, technologically
7 advanced statewide system of telecommunications
8 services by permitting competition in all
9 telecommunications services markets. The Act goes on
10 to say that the regulation of telecommunications
11 services and telecommunications services providers
12 shall protect the interests of consumers without
13 unreasonable prejudice or disadvantage to any
14 telecommunications services provider.

15 I'm taking the time to emphasize
16 this point this morning to remind all to remain
17 cognizant that our perspective is, in my opinion,
18 more expansive and more encompassing than that of any
19 single party in this proceeding. We have a greater
20 duty and a far greater challenge than most. We
21 cannot afford to handcuff our state's technological
22 and competitive development by cleaving to minimum
23 requirements or by ignoring the realities of
24 approving a reliable system of telecommunications in
25 this state. We must balance all interests with

1 honesty, wisdom, intellect, and fairness. With that
2 said, Mr. Chairman, I'm ready to proceed.

3 CHAIRMAN GREER: Let me make a
4 comment as well. As I've deliberated on this issue
5 of permanent prices for unbundled network elements, I
6 have been cognizant of my obligations under the 1996
7 Telecommunications Act to determine fair and
8 reasonable forward-looking prices for UNEs, as well
9 as my obligation under the Tennessee state law, which
10 is to foster the development of a technologically
11 advanced telecommunications network.

12 At the same time I have
13 endeavored to uphold the mission of the Agency, which
14 is to promote the public interest by balancing the
15 interest of utility consumers and providing -- while
16 facilitating the transition to a more competitive
17 environment. Fulfilling each of these obligations is
18 critical in that the level of UNE prices will have a
19 crucial impact on the development of local
20 competition and the expanded consumer choices that
21 competition should bring.

22 I found flaws and merits in both
23 models. I believe that my suggestions and
24 adjustments to the two cost models, TELRIC by
25 BellSouth and Hatfield by AT&T and MCI, in this Phase